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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/554,159	10/21/2005	Oliver Veits	2003P06636WOUS	7827

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SIEMENS CORPORATION
INTELLECTUAL PROPERTY DEPARTMENT
170 WOOD AVENUE SOUTH
ISELIN, NJ 08830

EXAMINER

RUTKOWSKI, JEFFREY M

ART UNIT	PAPER NUMBER
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2619

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/554,159	Applicant(s) VEITS, OLIVER	
	Examiner JEFFREY M. RUTKOWSKI	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 October 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/21/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-9 have been cancelled.

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 10-25** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. **Claims 10-16 and 22** are incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: step(s) reciting how the first network element discovers a source address to be valid in the second network domain, such as the request procedure found in **claim 17**. An address discovery step is critical because the first network element only uses a source address that is valid in the second network domain which makes sure that other network devices, such as firewalls, will allow the traffic to pass.
5. **Claim 11** is indefinite because it is unclear if the destination address on line 3 of the claim is referring to the first network element or the second network element as a destination.
6. **Claims 17-21** are also indefinite because it is unclear which device is also part of the request procedure to receive the request from the first network element.

Art Unit: 2619

7. **Claim 23** is indefinite because the claim does not recite any steps that are actually performed.

8. **Claims 24-25** are indefinite because the claims do not recite any parts of the network element.

Claim Rejections - 35 USC § 101

9. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 23 is rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter, namely a computer program.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. **Claims 10-20, 22-25** are rejected under 35 U.S.C. 103(a) as being unpatentable over Paulsamy et al. ("Network Convergence and the NAT/Firewall Problems"), hereinafter referred to as Paulsamy, in view of Fangman et al. (US Pg Pub 2002/0141390), hereinafter referred to as Fangman, Shah et al. (US Pg Pub 2003/0161295), hereinafter referred to as Shah, and Roshko (US Pat 7,333,500).

13. For **claim 10**, Paulsamy discloses a Session Initiation Protocol (SIP) architecture where client1 (a first network element) places a call to client2 (a second network element) **[figure 1]**. Additionally, a Network Address Translation (NAT) device (a network node device) is used to interconnect the clients during a call **[figure 3]**.

14. Paulsamy discloses the client1 uses a private addressing scheme, hereinafter referred to as RFC 1918 addresses, that is translated to a public address, allowing client1 to communicate with devices external to the client1's local network. Paulsamy's does not disclose how client2 is addressed. Roshko discloses a SIP network architecture where a Media Gateway (MG) **5** (first network element) that is in a network domain that uses RFC 1918 addresses (addresses valid in the first network domain) communicates via NAT device with a Media Gateway Controller (MGC) **3** (a second network element) that resides in a publicly addressed domain (address valid in the first network domain) **[figures 1 and 2]**. It would have been obvious to a person of ordinary skill in the art at the time of the invention to use Roshko's architecture in Paulsamy's invention to allow an internal detect NAT device(s) in the network **[Roshko, abstract]**.

15. Paulsamy discloses a SIP architecture where a client uses a Simple Traversal of UDP Throuh NATs (STUN) that allows client1 (a first network element) to determine the public address allocated to it by a NAT device (a source address of the first network element valid in

the second network domain) [**Section 8.1 and figure 3**]. Paulsamy does not disclose entering the address information into the payload (data part) of a packet. Shah discloses Voice over Internet Protocol (VoIP) uses IP address schemes [**0006**] and also places IP address information into the payload of packets [**0009**]. Given that Paulsamy discloses client1 is able to determine it's public NAT address (an address of the first network element valid in the second domain) and Shah discloses VoIP applications place address information into the payload of packets and there is a recognized problem with NAT in VoIP architectures [**Shah, 0009**], it would have been obvious to a person of ordinary skill in the art at the time of the invention enter the valid network address of client1 into the payload of a packet as a source address to allow for public IP to private IP communication [**Fangman, 0016**]. There is a reasonable expectation of success because placing address information into the payload of a packet does not change the manner in which VoIP applications normally operate.

16. For **claim 11**, Paulsamy does not disclose the use of source and destination addressing in the payload of a packet. Shah discloses VoIP uses IP addressing schemes to identify the source and destination endpoint addresses [**0006**]. Additionally, the IP address information is also placed in the payload of a packet [**0009**]. It would have been obvious to a person of ordinary skill in the art at the time of the invention enter the valid network address of client1 into the payload of a packet as a source address to allow for public IP to private IP communication [**Fangman, 0016**].

17. For **claims 12-16**, Paulsamy suggests client2 (the second network element) creates a response packet [**figure 3**]. Paulsamy does not disclose the use of source and destination addressing in the payload of a packet. Shah discloses VoIP uses IP addressing schemes to

identify the source and destination endpoint addresses [0006]. The IP addressing schemes allows for bi-directional communications, between a source and a destination, to occur. Additionally, the IP address information is also placed in the payload of a packet [0009]. It would have been obvious to a person of ordinary skill in the art at the time of the invention enter the valid network address of client1 into the payload of a packet as a source address to allow for public IP to private IP communication [Fangman, 0016].

18. For **claims 17-20**, Paulsamy discloses client1 determines a source address by sending a request to a STUN server before information is exchanged [figure 3].

19. For **claim 22**, Paulsamy's invention is implemented by a computer program product with code executed on a computer [figure 3].

20. For **claim 23**, Paulsamy discloses the use of NAT and Proxy gateways and a STUN server (computer unit assigned to the network elements) [figures 1 and 3].

21. For **claim 24**, Paulsamy discloses the use of NAT gateways (network elements).

22. For **claim 25**, Paulsamy discloses the use of IP (packet-oriented method) [abstract].

Allowable Subject Matter

23. **Claim 21** would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JEFFREY M. RUTKOWSKI whose telephone number is (571)270-1215. The examiner can normally be reached on Monday - Friday 7:30-5:00 PM EST.

Art Unit: 2619

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jeffrey M Rutkowski
Patent Examiner
06/25/2008

/Hassan Kizou/
Supervisory Patent Examiner, Art Unit 2619